Appendix 5-2 INEEL RELATED NEPA ANALYSIS SUMMARIES

The following are summaries of the INEEL related NEPA analyses that were reviewed to establish the scope of operations that currently are covered by NEPA documentation. These are given to show the extent of analysis done for each NEPA document. The summaries are organized according to the following outline:

1. **General Scope/Purpose and Need of EIS/EA**

2. **Alternatives Analyzed**

3. **Decisions to be Made**

4. **INEEL Programs Analyzed**

5. **Decisions Regarding INEEL Programs**

The majority of these documents can be found on the EH NEPA web site at http://tis.eh.doe.gov/nepa/. The balance is available through the INEEL NEPA document control center maintained by the INEEL management and operating contractor.

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Environmental Assessment: Demolition of the S5G Cooling Tower; Butler Buildings 7, 8, and 9; S1W #2 Spray Pond; and S1W Exterior Ventilation, August 1997

1. General Scope/Purpose and Need of EIS/EA

The purpose of this Environmental Assessment is to evaluate the environmental impacts of the proposed action to demolish and dispose of a system and several structures at the Idaho National Engineering and Environmental Laboratory (INEEL), Naval Reactors Facility (NRF) and alternatives to the proposed action. The system is the S1W exterior ventilation system. The structures are the S5G cooling tower, Butler Buildings 7, 8, and 9, and the S1W #2 spray pond. Alternatives to the proposed action include no action and alternative use.

2. Alternatives Analyzed

The Proposed Alternative. The proposed action is to demolish and dispose of the S5GT cooling tower, Butler Buildings 7, 8, and 9, S1W #2 spray pond, and the S1W exterior ventilation system.

No-Action Alternative. The no-action alternative would involve leaving the S5G cooling tower, the Butler buildings, the S1W #2 spray pond, and the S1W exterior ventilation system in place in their current conditions. There would be no adverse environmental impact associated with leaving these inactive facilities in place. However, resources would have to be expended to maintain them in a safe and stable condition.

Alternate Use Action. Alternative uses for the buildings were considered. No feasible alternatives were found.

3. Decisions to be Made

The decisions to be made are whether to perform D&D on the subject buildings at the NRF.

4. INEEL Programs Analyzed

The INEEL program analyzed is NRF.

5. Decisions Regarding INEEL Programs

A Finding of No Significant Impact was made concerning the proposed action.

Environmental Assessment: Demolition of Fourteen Buildings and One Structure Ancillary to the Naval Prototype Plants at the Naval Reactors Facility, June 2000

1. General Scope/Purpose and Need of EIS/EA

The purpose of this Environmental Assessment is to evaluate the environmental impacts of the proposed action to demolish and dispose of fourteen buildings and one structure at the Idaho National Engineering and Environmental Laboratory (INEEL), Naval Reactors Facility (NRF) and alternatives to the proposed action.

2. Alternatives Analyzed

The Proposed Alternative: The proposed action is to demolish and dispose of Butler Buildings 10 and 10A, S1W Battery Butler Buildings 14 and 15, S1W Guardhouse, Flammable Storage Shed, S1W Pumphouse, Radiography Buildings, Radioactive Component Storage Warehouse, A1W Radioactive Waste Processing System Facility, and the S1W #1 Spray Pond over the next several years.

No-Action Alternative: The no-action alternative would involve leaving the buildings in place in their current conditions. There would be no significant adverse environmental impact associated with leaving these inactive facilities in place. However, resources would have to be expended to maintain them in a safe and stable condition.

Alternate Use Action: Alternative uses for the buildings were considered. No feasible alternatives were found.

3. Decisions to be Made

The decisions to be made are whether to perform D&D on the subject buildings at the NRF.

4. INEEL Programs Analyzed

The INEEL program analyzed is NRF.

5. Decisions Regarding INEEL Programs

A Finding of No Significant Impact was made concerning the proposed action.

DOE/EA-0821 - Operation of the Glass Melter Thermal Treatment Unit at the U. S. Department of Energy's Mound Plant in Miamisburg, Ohio, June 1995

1. General Scope/Purpose and Need of EIS/EA

The Mound Plant has an inventory of radioactive mixed waste, which presents a degree of risk to human health and the environment, since most of the waste is in the liquid state and much of it is combustible. Mound's stored radioactive mixed waste not only poses environmental concerns, but also presents legal problems for the Plant. This RCRA hazardous waste is being stored at Mound for the sole reason that no treatment and disposal options for it have yet been identified. RCRA Land Disposal Restriction regulations as recorded in 40 CFR 268.50 do not allow storage of land disposal restriction waste for this reason unless a specific storage extension for the waste has been granted by the EPA. Such extensions, even if granted, are by law of limited duration.

Treatment of Mound radioactive mixed waste by means of the glass melter offers a route toward correction of Mound's RCRA waste storage violation, and also a means to greatly minimize hazards associated with temporary storage of mixed waste by destruction of organic material and immobilization of many inorganic RCRA hazardous and radioactive constituents.

2. Alternatives Analyzed

The Proposed Alternative: Because of the demonstrated effectiveness of the glass melter, DOE is now considering incorporating this facility into its hazardous and mixed-waste treatment and disposal program for Mound operations.

No-Action Alternative: The no-action alternative assumes the continuation of present practices of waste storage and disposal. A total of 143 m3 of hazardous waste is presently being shipped to disposal facilities in Pinewood and Roebuck, South Carolina; Eldorado, Arkansas; and Pecatonica, Illinois.

An additional eight 55-gallon drums of mixed waste (approximately 1.6 m3) are currently being generated annually and stored on site in Building 23, and the storage capacity of Building 23, based on spill capacity, has been exhausted. Since no other storage capacity suitable for these wastes is available on site, adoption of the no-action alternative would require the construction of additional storage capacity.

Administrative Action: The initiation of administrative actions to reduce the generation of radioactive mixed waste provides an alternative for waste control. Training needs have been identified, and a training and communication program has been developed to ensure that employees understand their obligation to minimize waste generation in all processes and operations. Efforts to reduce waste generation at Mound cannot totally eliminate the generation of radioactive mixed wastes. Hazardous waste generating materials are already in radioactive systems, and will eventually become waste. Replacement of some hazardous materials will not be easy to accomplish under Mound's DOE mission requirements. Waste reduction will not affect waste already in storage. The need for disposal options will persist.

Off-Site Hazardous Waste Disposal: Mound currently uses the services of Laidlaw Environmental Inc., which is a full service waste treatment company specializing in the disposal

of hazardous wastes. Laidlaw does not handle mixed wastes, so this disposal option does not address Mound's primary concern, that of stored and newly generated mixed wastes.

Quadrex HPS, Inc.: Quadrex HPS, Inc., located in Gainesville, Florida, is a waste-handling and storage company that can offer the disposal of scintillation fluids and nonradioactive ignitable hazardous wastes. The facility cannot accept non-scintillation mixed wastes, and could accept only those scintillation fluid wastes containing carbon-14, tritium, and other short-lived hospital/research lab type isotopes of concentrations no greater than 0.05 microcuries per gram of medium. While the Quadrex facility cannot accept non-scintillation mixed wastes, and could accept only a portion of Mound's tritium contaminated scintillation fluid waste, it could accept the three annual shipments of glass melter suitable waste currently being sent to the Laidlaw Environmental facilities. The Quadrex facility is located approximately 900 miles from the Mound Plant. Transport of the three annual hazardous waste shipments to Quadrex would involve a total annual travel distance of 2,703 miles.

Diversified Scientific Services, Inc.: DDSI, located in Kingston, Tennessee, operates an industrial boiler and expects to accept a variety of listed and characteristic RCRA hazardous wastes as fuel for electricity generation. This alternative is suspect because of air permit conditions and by impacts of the new Boiler and Industrial Furnace (BIF) regulations. In addition to the permitting unknowns, system capacities are extremely limited at the present time, and the waste acceptance priorities have not been defined.

Idaho National Engineering Laboratory: The Idaho National Engineering Laboratory has a permitted incinerator facility, WERF, capable of burning low-specific-activity (LSA) radioactive material and hazardous waste. WERF acceptance criteria would prohibit the acceptance at WERF of almost all of the waste proposed for treatment in the Glass Melter.

Los Alamos National Laboratory (LANL): The Los Alamos incinerator facility in New Mexico is in the process of being permitted to burn transuranic waste and some low-level radioactive mixed waste. Current operational plans do not include acceptance of off-site wastes, and the current LANL RCRA permit prohibits treatment of off-site waste.

Savannah River Site: The Savannah River Site is currently constructing the Consolidated Incinerator Facility (CIF). The CIF will be capable of handling both solid and liquid wastes that are RCTA hazardous, radioactive, or radioactive mixed (including scintillation fluids). The construction permit from the State of South Carolina, however, does not allow out-of-state waste to be treated in the CIF.

Oak Ridge Gaseous Diffusion Plant: The incinerator at the Oak Ridge Gaseous Diffusion Plant (ORGDP) facility is currently in use for the disposal of mixed wastes. The ORGDP incinerator has a substantial backlog of wastes that will take several years to destroy. Thus, this alternative would not be available to Mound Plant for several years and will not meet the Mound immediate needs.

Nevada Test Site: The Nevada Test Site would only be a reasonable alternative for Mound waste already treated at another facility. DOE has not yet decided to what extent the Nevada Test Site would be used for future disposal of offsite waste; such decisions will be made after completion of the Environmental Management Programmatic Environmental Impact Statement and the Nevada Test Site Site-wide EIS.

3. Decisions to be Made

The basic decision to be made was where to treat Mound's mixed waste, on-site in the glass melter, or off-site. The preferred alternative was the Mound Glass Melter.

4. INEEL Programs Analyzed

WERF was analyzed as a treatment option for Mound mixed waste.

5. Decisions Regarding INEEL Programs

The WERF is incompatible with most of the Mound mixed waste and was not selected.

DOE/EA-0843 - Idaho National Engineering and Environmental Laboratory Low-Level and Mixed Waste Processing, June 1994

1. General Scope/Purpose and Need of EIS/EA

The U. S. Department of Energy (DOE) prepared this Environmental Assessment (EA) to reduce the need to store accumulated waste, which in turn would reduce the radiation exposure to INEEL workers and reduce the risk of additional exposure from storage container deterioration. The proposed action would also reduce the volume of waste being disposed of at the Radioactive Waste Management Complex, thereby conserving its disposal capacity.

The proposed action includes transporting Low-Level Waste (LLW) to a commercial treatment facility for incineration to reduce the waste volume. The current proposal is to truck the LLW to a commercial incinerator, such as the Scientific Ecology Group, Inc. facility in Oak Ridge, Tennessee or an alternative facility. The Oak Ridge facility would treat the resultant ash as appropriate and returned to INEEL for management and disposal at the Radioactive Waste Management Complex.

2. Alternatives Analyzed

DOE analyzed the following alternatives: (a) Incinerate Mixed Low-Level Waste (MLLW) at the Waste Experimental Reduction Facility (WERF); reduce the volume of-the INEEL-generated LLW through sizing, compacting, stabilizing, and incineration at the WERF; and ship the INEEL LLW to a commercial incinerator for supplemental LLW volume reduction; (b) Treat MLLW by methods other than incineration and continue use of WERF to incinerate, compact, and size LLW; (c) Dispose of LLW without volume reduction and continue to store MLLW; Construct and operate a New MLLW incinerator and continue to incinerate, compact, and size LLW at the WERF; and (d) Treat MLLW at another DOE incinerator and continue to incinerate, compact, and size LLW at the WERF. In addition, the DOE evaluated the consequences of no action.

3. Decisions to be Made

The decision to be made was whether or not to treat INEEL LLW and MLLW and where that treatment should take place.

4. INEEL Programs Analyzed

The WERF incinerator is an existing facility that has treated both LLW and MLLW (on an experimental basis). The program analyzed included WERF incineration, sizing, compaction, and stabilization; offsite incineration in operating commercial facilities; and continued storage of MLLW at the Mixed Waste Storage Facility.

5. Decisions Regarding INEEL Programs

DOE decided to propose an additional alternative which consists of sizing, compacting, and stabilizing (mixing ash with cement) LLW at WERF, shipment of INEEL LLW to an offsite incinerator, and continued storage of MLLW. Future decisions on treatment of LLW and MLLW at WERF were deferred until completion of the INEL ER & WM EIS.

DOE/EA-0845 - Expansion of the Idaho National Engineering Laboratory Research Center, March 1994

1. General Scope/Purpose and Need of EIS/EA

The U.S. Department of Energy (DOE) prepared an Environmental Assessment (EA) to expand and upgrade facilities at the Idaho National Engineering and Environmental Laboratory Research Center (IRC). DOE proposed to construct a research laboratory addition on the northeast comer of existing laboratory building; upgrade the fume hood system the existing laboratory building; and construct a hazardous waste handling facility and a chemical storage building. The DOE also proposes to expand the capabilities of biotechnology research programs by increasing use of radio labeled compounds to levels in excess of current facility limits for three radionuclides.

The purposes of the actions are to enhance the efficiency and safety of existing IRC operations. Additional laboratory space is needed to support the current range of research activities at the IRC, and the existing IRC fume hood system needs to be improved. Self-contained hazardous waste operations and bulk chemical storage are needed to facilitate storage and handling capabilities in support of the IRC. Finally, biotechnology research requires the use of radio labeled compounds to conduct routine analytical procedures currently not available at the IRC.

2. Alternatives Analyzed

The DOE analyzed the proposed action to expand and upgrade the facility adjacent to the existing IRC and several in-town facilities. In addition, the DOE evaluated the consequences of no action.

3. Decisions to be Made

The decision to be made was whether to expand the capabilities of the IRC and perform the construction activities that were identified.

4. INEEL Programs Analyzed

IRC--DOE proposed to construct a research laboratory addition on the northeast comer of the existing laboratory building; upgrade the fume hood system the existing laboratory building; and construct a hazardous -waste handling facility and a chemical storage building. The DOE also proposes to expand the capabilities of biotechnology research programs by increasing use of radio labeled compounds to levels in excess of current facility limits for three radionuclides.

5. Decisions Regarding INEEL Programs

DOE determined construction and operation of proposed facilities would not cause significant environmental impacts and issued a Finding of No Significant Impact. The proposed action was implemented.

DOE/EA-0906 - Waste Characterization Facility at the Idaho National Engineering and Environmental Laboratory, February 1995

1. General Scope/Purpose and Need of EIS/EA

The DOE prepared an Environmental Assessment (EA), to construct and operate a Waste Characterization Facility (WCF) at the Idaho National Engineering and Environmental Laboratory (INEEL). This facility is needed to examine and characterize containers of transuranic (TRU) waste to certify compliance with transport and disposal criteria; to obtain information on waste constituents to support proper packaging, labeling, and storage; and to support development of treatment and disposal plans for waste that cannot be certified. DOE would construct the WCF at the Radioactive Waste Management Complex (RWMC).

2. Alternatives Analyzed

This EA analyzed the following alternatives: (a) constructing and operating a WCF at the INEEL to characterize, treat, and repackage, as necessary, contact-handled transuranic waste (CH-TRU), LLW, and mixed wastes from the Transuranic Storage Area (TSA), INEEL environmental restoration activities, and other DOE laboratories to meet regulatory and research requirements and (b) locating the facility at another location. In addition, the DOE evaluated the consequences of no action.

3. Decisions to be Made

The decision to be made was whether to build a characterization facility for TRU waste and where to locate that facility.

4. INEEL Programs Analyzed

The INEEL program analyzed included long-term management of stored TSA waste including appropriate characterization, treatment, packaging, and transport of waste to the Waste Isolation Pilot Plant (WIPP) or other designated disposal facilities. In support of anticipated near-term phase activities at WIPP, DOE was characterizing a small number of TRU waste containers at the INEEL's Argonne National Laboratory – West (ANL-W) facility. The characterization activities include container headspace gas sampling and analysis, visual waste examination and repackaging into instrumented test bins. The ANL-W facility has restricted waste characterization throughput capacity and limited ability to process boxed waste. This facility cannot meet expected throughput rates for the WIPP production phase.

5. Decisions Regarding INEEL Programs

The decision was made to proceed with construction of the WCF.

DOE/EA-0907 - Expansion of the Idaho National Engineering Laboratory Sewer System Upgrade, April 1994

1. General Scope/Purpose and Need of EIS/EA

The U. S. Department of Energy (DOE) prepared this Environmental Assessment (EA) to provide the Idaho National Engineering and Environmental Laboratory (INEEL) with a reliable method for treating and disposing of sanitary sewage waste. Each facility area at the INEEL has an independent sewage treatment system to accommodate all operations in that vicinity. Each system includes some type of sewage treatment plant and a connecting network of sewer lines to collect sewage. The treatment plants at these locations are deteriorating. The equipment is outdated (parts are no longer available) and inefficient and requires continual maintenance and repair. The U.S. Department of Energy (DOE) needs a reliable method for treating and disposing of sanitary sewage waste at Central Facility Area, Contaminant Test Facility at Test Area North, and Test Reactor Area that would be cost effective, low maintenance, and in compliance with the State of Idaho Water Land Application Permit regulations.

2. Alternatives Analyzed

The DOE analyzed the following alternatives: (a) Sewage treatment plant designs and the no action alternative.

3. Decisions to be Made

The decision to be made was whether to upgrade the existing sewer system at 3 INEEL facilities.

4. INEEL Programs Analyzed

INEEL sewer system upgrades.

5. Decisions Regarding INEEL Programs

DOE decided that the proposed action to upgrade the INEEL sewer system did not constitute a major Federal action significantly affecting the quality of the human environment and issued a Finding of No Significant Impact.

DOE/EA-0929 - Proposed Interim Storage of Enriched Uranium Above the Maximum Historical Storage Level at the Y-12 Plant, Oak Ridge, Tennessee, September 1994

1. General Scope/Purpose and Need of EIS/EA

The United States Department of Energy (DOE) has prepared an Environmental Assessment (EA) for the *Proposed Interim Storage of Enriched Uranium Above the Maximum Historical Storage Level at the Y-12 Plant, Oak Ridge, Tennessee*. The EA evaluates the environmental effects of transportation, prestorage processing, and interim storage of bounding quantities of enriched uranium at the Y-12 Plant over a ten-year period.

The Department is required by the Atomic Energy Act of 1954, as amended, to provide for the safe and secure storage of enriched uranium. This mission must be implemented in an environmentally responsible manner that is safe, timely, cost-effective, and consistent with the plans to reduce the nuclear weapons stockpile. Interim storage is needed immediately at a location where prestorage processing capability is available in order to support continued dismantlement of weapons, nonproliferation, and other purposes of national security. Processing of highly enriched uranium at the interim storage site would allow continued disassembly of weapons components, known as secondaries, received from the Pantex Plant. Currently, secondaries shipped from Pantex to the Y-12 Plant are scheduled for disassembly upon receipt at Y-12, except for secondaries which are part of the strategic reserve and are placed directly in storage. Interim storage would also enable the Department to remove enriched uranium from other sites where it is not needed. The Department also needs to process enriched uranium for material control, accountability, and maximum utilization of existing interim storage space in accordance with good management practices.

Interim storage for enriched uranium is needed to start immediately and continue until decisions are made and implemented regarding the long-term storage and disposition of all surplus weapons-usable fissile materials. While the Department has initiated the NEPA process for these decisions, it is not yet possible to project when future final decisions will be implemented. Because of the uncertainty on the timing of long-term storage and disposition actions, interim storage for enriched uranium may be needed for up to ten years. The Disposition PEIS would be followed by project-specific NEPA documents. If interim storage is required beyond ten years, the Department will prepare additional NEPA documentation.

2. Alternatives Analyzed

No Action Alternative--Under the no action alternative, the Y-12 Plant would continue to receive enriched uranium for interim storage until historical storage levels of enriched uranium are reached. Shipments from other sites would then be suspended, including the weapons components currently shipped from the Pantex Plant to Y-12 for disassembly. Only the Y-12 Plant currently has the processing capabilities necessary for disassembly of secondaries received from the Pantex Plant. Therefore, the no action alternative would not meet the Department's purposes of supporting the U.S. goals of nonproliferation and reduction of global nuclear danger, as discussed in the section below on Pantex.

Prestorage processing of the uranium-bearing materials presently on site would continue. It is anticipated that processing this backlog of material could take approximately seven years. This backlog does not include weapons components received from the Pantex Plant; the

secondaries are scheduled for disassembly upon arrival at Y-12. The enriched uranium that could not be shipped to the Y-12 Plant would remain in storage at 23 sites.

Restricted Receipt of Highly Enriched Uranium (HEU)--Under this alternative, Y-12 would receive HEU from the Pantex Plant and may receive fissionable material from foreign sources. No enriched uranium would be received from any other domestic site. Because the majority of the HEU received at the Y-12 Plant is from Pantex, stopping shipments of enriched uranium from all domestic sites would only postpone exceeding the date for Y-12's historical interim storage level by a few months. There are no operational, environmental, or health and safety benefits attributable to receiving HEU only from this restricted suite of sites. This alternative would support dismantlement activities at Pantex and disassembly of secondaries at Y-12, but the effects on sites other than Pantex would be the same as those under the no action alternative.

Enriched Uranium Interim Storage at Site(s) Other Than the Y-12 Plant--Under this alternative, sites that currently have enriched uranium would ship it to a site (or sites) other than Y-12, where it could be received for interim storage, but without prestorage processing. Alternative interim storage sites could include (1) one of the sites where HEU is currently located, including Portsmouth, Savannah River, Hanford, Rocky Flats, or one of the national laboratories; (2) a Department of Defense (DOD) facility; or (3) a non-DOE or non-DOD facility. None of these sites has the existing facilities to process-enriched uranium for storage or the existing authorized capability to store the Pantex Plant HEU. Only the Y-12 Plant currently has the processing capabilities necessary for disassembly of secondaries received from the Pantex Plant. Prestorage processing capability could not be added at other sites in the immediate near term, and secondaries could not be disassembled. Therefore, this alternative could not meet the Department's purposes of supporting the U.S. goals of nonproliferation and reduction of global nuclear danger.

3. Decisions to be Made

The decision that is being made is where to store the DOE's enriched uranium.

4. INEEL Programs Analyzed

INEEL programs analyzed are shipment of INEEL and ANL-W highly enriched uranium and low enriched uranium to the Y-12 plant at Oak Ridge, TN. The impacts of leaving the material in place were evaluated in the No Action Alternative.

5. Decisions Regarding INEEL Programs

The INEEL HEU and LEU will be shipped to the Y-12 plant.

DOE/EA-0985 - Environmental Assessment And (FONSI) Relocation and Storage Of TRIGA Reactor Fuel U.S. Department of Energy Richland, Washington, August 1995

1. General Scope/Purpose and Need of EIS/EA

The U.S. Department of Energy (DOE) needs to relocate the irradiated and unirradiated nuclear fuel assemblies from the Mark I TRIGA Reactor storage pool in order to complete the shutdown of the 308 Building, in the 300 Area on the Hanford Site, Richland, Washington. Shutdown of the 308 Building would place the building in a minimum surveillance condition prior to decommissioning activities, saving an estimated $600,000 per year.

2. Alternatives Analyzed

Proposed Action. The DOE proposes to relocate nuclear fuel assemblies (101 irradiated and three unirradiated) from the 308 Building storage pool in the 300 Area of the Hanford Site. Relocation of these fuel assemblies would allow the shutdown of the 308 Building, which is no longer needed for the fabrication of fuel assemblies and test assemblies for the Fast Flux Test Facility (FFTF).

No-Action Alternative. DOE would continue to store the fuel assemblies in the storage pool until the Record of Decision for Vol. 1 of the 1995 EIS is implemented.

Store the Fuel Assemblies in an existing Hanford Site Waste Storage Facility. Under this alternative, the fuel assemblies would be stored in an existing Hanford Site Waste Storage Facility, such as the Hanford Central Waste Complex.

Ship the Fuel Assemblies to the Idaho National Engineering Laboratory for Storage. Under this alternative, the fuel assemblies would be shipped directly to the Idaho National Engineering Laboratory for storage.

Ship the Fuel Assemblies to Another Existing Fuel Storage Basin on the Hanford Site. This alternative would relocate the fuel assemblies to another existing wet-storage facility on the Hanford Site.

Rail Transport. This alternative would utilize rail transport to relocate the fuel assemblies to the Interim Storage Area (ISA).

3. Decisions to be Made

The decision to make is to determine where to relocate nuclear fuel assemblies (101 irradiated and three unirradiated) from the 308 Building's Neutron Radiography Facility (NRF) Mark I TRIGA Reactor (TRIGA Reactor) storage pool, which is located in the 300 Area of the Hanford Site, near Richland, Washington.

4. INEEL Programs Analyzed

Receipt of the SNF from Hanford and long-term storage of the SNF.

5. Decisions Regarding INEEL Programs

The decision was made to proceed with the proposed action. However, this did not preclude future shipment to the INEEL once the injunction imposed by the State of Idaho on receipt of additional SNF (1993) was lifted.

DOE/EA-1034 - HPIL Replacement of the Idaho National Engineering and Environmental Laboratory, May 1995

1. General Scope/Purpose and Need of EIS/EA

The U. S. Department of Energy (DOE) prepared this Environmental Assessment (EA) to replace, upgrade, or move the Health Physics Instrumentation Laboratory (HPIL), or its functions, to provide a safe environment for maintaining, calibrating, and verifying radiation detection instruments used at the Idaho National Engineering and Environmental Laboratory (INEEL). The existing HPIL facility provides portable health physics monitoring instrumentation and direct reading dosimetry procurement, maintenance, calibration, and verification of radiation detection instruments, and research and development support-services to the INEEL and others. However, DOE did not design the existing facility for laboratory activities. The existing laboratory did not provide an adequate, safe environment for maintenance, calibration, and verification activities.

To ensure a safe environment for activities involving radioactive materials, a thorough maintenance and accurate calibration of radiation detection devices is necessary. To provide accurate exposure data, radiation detection instruments must routinely undergo testing, quality control, and quality assurance activities in accordance with DOE Orders and the American National Standards Institute (ANSI) guidelines.

2. Alternatives Analyzed

DOE analyzed the following six alternatives: (a) constructing a replacement facility, (b) relocating existing HPIL functions to the former Central Laundry and Respirator Facility, Building CFA-617, (c) renovating and expanding the current facility, CFA-633, (d) contracting with an off-site vendor and constructing a new on-site support building for shipping, receiving, storing, and verifying, and (e) contracting with an off-site vendor and renovating and expanding CFA-617 for shipping, receiving, storing, and verifying. In addition, the DOE evaluated the consequences of no action.

3. Decisions to be Made

The decision to be made was whether to upgrade the Health Physics monitoring capability at the INEEL by constructing new facilities or contracting to an outside vendor.

4. INEEL Programs Analyzed

INEEL programs analyzed were the Health Physics Instrumentation Laboratory replacement and program.

5. Decisions Regarding INEEL Programs

DOE decided to construct and operate new facilities and to keep the Health Physics Monitoring program at the INEEL, instead of contracting to an outside vendor.

DOE/EA-1050 - Test Area North Pool Stabilization Environmental Assessment for Stabilization of the Storage Pool at Test Area North, May 1996

1. General Scope/Purpose and Need of EIS/EA

The DOE prepared an EA to remove the canisters of Three Mile Island (TMI) core debris and commercial fuels from the Test Area North (TAN) Pool and transfer them to the INTEC for interim dry storage until an alternate storage location other than at the INEEL or a permanent federal spent nuclear fuel (SNF) repository is available. The TAN Pool would be drained and placed in an industrially and radiological safe condition for refurbishment or eventual decommissioning.

This EA identified and evaluated environmental impacts associated with (a) constructing an Interim Storage System (ISS) at INTEC; (b) removing the TMI and commercial fuels from the pool and transporting them to INTEC for placement in an ISS, and (c) draining and stabilizing the TAN Pool. DOE also proposed to remove and decontaminate or dispose of miscellaneous hardware in the INEEL RWMC.

DOE identified and proposed to eliminate vulnerabilities associated with SNF storage facilities. Vulnerabilities identified for TAN are storage of SNF in an unlined pool, wet storage of commercial SNF in aluminum coffins, and seismic inadequacy of the pool. In May of 1995, the State of Idaho asked the District Court to continue the prior injunction against SNF transportation by the Department of Energy, claiming that the 1995 EIS was defective. DOE, the Department of the Navy and the State of Idaho settled the litigation through a Settlement Agreement. The Settlement Agreement states: "DOE shall complete construction of the Three Mile Island dry storage facility by December 31, 1998. DOE shall commence moving fuel into the facility by March 31, 1999, and shall complete moving fuel into the facility by June 1, 2001."

The TAN Pool does not meet SNF storage requirements delineated in DOE Order 420.1. Principal deficiencies of the TAN Pool include lack of redundant containment of pool water (i.e., stainless steel pool liner), no provisions for detecting subsurface leaks from the pool, and inadequate control of the air space over the pool.

2. Alternatives Analyzed

This EA analyzes the following alternatives: (a) Refurbish the TAN Pool, (b) Construct a New Wet (underwater) Storage Facility, (c) Store the TMI Core Debris Canisters and Commercial Fuels in Existing ICPP Storage Systems (d) Construct an Independent Spent Fuel Storage Facility at a Point Removed From Above the Snake River Plain Aquifer, and (d) Construct an Independent Spent Fuel Storage Facility at TAN. In addition, the DOE evaluated the consequences of no action.

3. Decisions to be Made

The decision to be made was how to address the SNF vulnerabilities that were identified and how to meet the commitments made by DOE to the State of Idaho regarding removing SNF from the TAN pool.

4. INEEL Programs Analyzed

This environmental assessment (EA) identified and evaluated environmental impacts associated with spent nuclear fuel for (a) constructing an Interim Storage System (ISS) at INTEC; (b) removing the TMI and commercial fuels from the pool and transporting them to INTEC for placement in an ISS, and (c) draining and stabilizing the TAN Pool. DOE also proposed to remove and decontaminate or dispose of miscellaneous hardware in the INEEL RWMC.

5. Decisions Regarding INEEL Programs

DOE determined that the proposed action did not constitute a major Federal action significantly affecting the quality of the human environment and issued a Finding of No Significant Impact (FONSI). While the EA evaluated the impacts associated with the overall scope of the TAN Pool Stabilization Project, this FONSI was limited to actions that were within the scope of DOE's decision-making authority. The DOE applied to the NRC for licensing of: a) the transportation of the spent nuclear fuel and debris to INTEC and b) the construction and operation of the ISS. These actions are outside of the scope of DOE's decision-making authority; therefore, the NRC evaluated them as part of their independent NEPA evaluation and decision-making process.

DOE/EA-1059 - Environmental Assessment and FONSI- Radioactive Source Recovery Program, December 1995

1. General Scope/Purpose and Need for EA

Within the last several years, various governmental and other agencies such as the Department of Energy, (DOE), NRC, and the Conference of Radiation Control Program Directors (CRCPD) have voiced their concerns about the potential risks to the public health and safety from aging radioactive sources held by private companies, universities, and government entities. The aging of these sources, coupled with the increasing complexity of the licensing of nuclear materials has made radioactive source ownership more burdensome and costly, but source owners who want to get rid of their excess or unwanted sources have no options for doing so. This situation, potentially leading to mishandling or mismanagement of radioactive sources, causes a risk to public health and safety. If these sources are mishandled, members of the public could be exposed to radioactive emissions. If a source ruptures, members of the public could inhale or ingest radioactive material. DOE has already addressed some public health and safety concerns by reactivating a program to accept and manage plutonium-239 sealed radioactive neutron sources, and is now considering an additional program (the Radioactive Source Recovery Program) to protect public health and safety by accepting and managing other aging, unwanted, and excess radioactive sources.

Both public, private, and government owners have expressed the need to immediately turn over large numbers of ^{241}Am-Be and ^{238}Pu-Be neutron-emitting sealed sources to the federal government for safe management. This is because many of these sources are at or beyond the end of their useful life. DOE is the only government agency with the authority and the existing technical capability to safely manage these materials. The DOE now needs to extend its capability beyond an emergency response basis to receive and safely manage excess and unwanted ^{241}Am-Be and ^{238}Pu-Be neutron sealed sources and assure that these sources are no longer a risk to the public health and safety.

2. Alternatives Analyzed

No Action Alternative--The no-action alternative would maintain the current level of effort and cooperation between the DOE and the NRC in the receipt of neutron sources. This typically would not go beyond receipt of neutron sources on emergency basis. Actions would be initiated to remove these sources from their licensees, or in the case of abandonment, from local governmental agencies when they are deemed to represent a potential hazard to public health and safety by the NRC. The number of removal actions and frequency of source abandonment is expected to increase as more neutron sources reach the end of their useful life and as more companies consider sources to be a liability rather than an asset.

LANL Alternative--The DOE proposes to establish a program to accept and recover surplus ^{241}Am-Be and ^{238}Pu-Be sealed neutron sources (hereafter referred to as neutron sources) in facilities at Los Alamos National Laboratory (LANL), located in the Southwestern part of the United States at Los Alamos, New Mexico. Neutron sources would be received from companies, universities, source brokers, and government agencies across the country. The current neutron source holders and brokers would ship them to LANL where their identities would be verified, their outer shells of stainless steel would be breached, and their neutron-producing source material recovered by the chemical separation of the $^{241}AmO_2$ or $^{238}PuO_2$ from the Be or BeO. Recovered material would be placed in interim storage at LANL. It is

anticipated that this program would have a duration of 15 years and would involve the recovery of less that 3 kilograms (kg [6.6 lb]) of Am-241 and less than 1 kg (2.2 lb) of Pu-238. Shipment of the sources continues to be the responsibility of the shipping organization.

A number of other options were proposed but were not analyzed in depth and were eliminated. Included were the alternatives of locating the source recovery effort at other DOE facilities and other facilities within LANL.

3. Decisions to be Made

The decisions to be made are whether to consolidate storage of certain radioactive sources from around the DOE complex at LANL.

4. INEEL Programs Analyzed

The TRA was initially proposed as a potential location for the source recovery effort. This proposal was dismissed due to unworkable programmatic impacts. Shipment of sources currently held by the INEEL was not included in the analysis.

5. Decisions Regarding INEEL Programs

None.

DOE/EA-1083 - New Silt/Clay Source Development and Use at the Idaho National Engineering and Environmental Laboratory, May 1997

1. General Scope/Purpose and Need of EIS/EA

The U. S. Department of Energy (DOE) proposed an Environmental Assessment (EA) to close its current silt/clay source and open as many as three new sources with volumes sufficient to support potential Idaho National Engineering and Environmental Laboratory (INEEL) projects through 2005. The current source, Spreading Area B [southwest of the Radioactive Waste Management Complex (RWMC)], is the sole INEEL silt/clay source. Of the estimated 717,700 cubic yards of silt/clay available in Spreading Area B, about 300,000 cubic yards remain and, at the present rate of mining and would be depleted in late 1997. A 1996 survey estimates that the INEEL needs 2,300,000 cubic yards of silt/clay material over the next ten years.

2. Alternatives Analyzed

This EA analyzed the following alternatives: (a) a combination of on-site locations -- Ryegrass Flats, Spreading Area A, and the Waste Reactor Research Test Facility and an off-site location. In addition, the DOE evaluated the consequences of no action or continuing to use Spreading Area B.

3. Decisions to be Made

The decision to be made was where to obtain soil for the numerous construction projects around the site.

4. INEEL Programs Analyzed

The silt/clay would be used for, but not be limited to a) the construction of soil caps for contaminated sites, research sites, and landfills, b) the replacement of radioactively contaminated soil with topsoil for revegetation, and backfill and, c) the sealing of sewage lagoons and other projects as shown below.

- Special Power Excursion Reactor Test No. IV
- Decontamination and Dismantlement soil covers for miscellaneous projects
- INEEL sewer upgrade
- INEEL radioactively contaminated soils repository
- Decontamination and Dismantlement of CFA-601 and 603
- North and east ditch at Argonne National Laboratory--West
- Subsurface Disposal Area cap
- Warm waste pond capping (Navel Reactors Facility)
- Transuranic pits and trenches
- Remote-handled low-level waste disposal vaults
- Pit 9
- Maintenance
- Boiling Water Reactor Experiment 08 ditch
- Warm waste pond
- Operations and Subsurface Disposal Area engineered barriers
- Capping and filling trenches at Test Area North

- Test Reactors Areas Sewer Lagoon

5. Decisions Regarding INEEL Programs

DOE determined that opening one to three new borrow sources concurrently or individually to meet INEEL silt/clay needs through 2005. The following on-site locations could provide this material: Ryegrass Flats, 5.5 miles east of the Central Facility Area (CFA); Spreading Area A, 9.0 miles southwest of CFA; and WRRTF, 25 miles north of CFA. While any of the three sites could meet the entire silt/clay needs of the INEEL, DOE will likely use a combination of sites to meet INEEL's needs because of costs and transportation efficiencies.

DOE determined that the proposed action did not constituted a major Federal action significantly affecting the quality of the human environment and issued a Finding of No Significant Impact (FONSI).

DOE/EA-1104 - Environmental Assessment and FONSI for Consolidation of Certain Materials and Machines for Nuclear Criticality Experiments and Training- Los Alamos National Laboratory, Los Alamos, New Mexico, May, 1996

1. General Scope/Purpose and Need of EIS/EA

DOE has committed to continuing its on-going experimentation program of general-purpose criticality experiments and to continuing to provide an education program for criticality safety professionals. Los Alamos Critical Experiments Facility (LACEF) is the last remaining operating facility in the United States capable of general-purpose criticality experiments and criticality training. Criticality experiments at other DOE sites have been eliminated from their areas of responsibility in an effort to streamline the DOE complex and avoid expensive program duplication. The transfer of certain materials and machines now located at other DOE sites to LACEF will allow DOE to further its capability to provide a robust experimentation program in support of reducing nuclear criticality safety risks.

The specific materials and machines identified are as follows: Hanford--741 unirradiated Low Enriched Uranium (LEU) fuel rods; Sandia National Laboratories (SNL) lightly irradiated and unirradiated Highly Enriched Uranium reactor fuel; and Oak Ridge National Laboratory (ORNL)--the Health Physics Research Reactor (HPRR) core which contains irradiated HEU reactor fuel. The INEEL material includes surplus slightly irradiated plutonium plates. LEU reactor fuels are composed of uranium metal that contains less than 20 percent of the uranium isotope uranium-235. HEU reactor fuels are composed of uranium metal that contains 20 percent or greater of the uranium isotope uranium-235. These nuclear materials, machines and sources are representative of those that could be utilized for criticality experiments at LACEF.

2. Alternatives Analyzed

No Action Alternative. Materials would remain at their present locations and would not be available for training purposes.

Proposed action. The proposed action consists of the shipment, storage, consolidation and use of surplus special nuclear materials and machines that would be used in support of the LACEF criticality experiments and training program at LANL. As stated, the available special nuclear materials and machines include the LEU fuel rods at Hanford, the CX particle bed fuel at SNL/NM, the HPRR at ORNL, the plutonium plates at INEL and the nesting shells at LANL. These materials and machines would be packaged and transported by either DOE or commercial carrier from their current locations to LACEF (except for the CX machine and equipment and nesting shells currently stored at LACEF). The storage and use of these materials would take place in any or all of the three kivas located at LACEF. The primary use of these materials and machines would be to conduct criticality experiments and criticality training.

3. Decisions to be Made

DOE has identified two primary disposition options for consideration: it can either declare and manage the surplus materials and machines as waste or it may move the material and machines to other DOE facilities where they can be used for the same or other purposes.

4. INEEL Programs Analyzed

The surplus weapons grade plutonium in storage at INEEL would be inspected and packaged in DOT authorized shipping containers. The INEEL materials would be shipped by DOE Safe Secure Transports to LANL as weapons grade material. The INEEL materials would be transported the 1363 km (818 mi) from Idaho National Engineering Laboratory to LANL as a single shipment of one to two DOT Specification 6M packages or containers. The materials would be inspected upon arrival and initially placed in a criticality safe storage configuration within one of the kivas. This 100 kg (220 lb) of plutonium would be stored at LACEF. Under the proposed action, the INEEL plutonium would be used for conducting experiments that examine the criticality behavior of plutonium.

The materials that were originally used at the INEEL in criticality experiments are at the Argonne National Laboratory West, Zero Power Research Reactor facility. That facility is currently shut down with little reasonable chance that it would be reactivated. Approximately 100 kg (220 lb) of weapons grade plutonium has been declared surplus to the INEEL needs and is, therefore, available for use in general criticality experiments. The proposed action consists of the shipment, storage, consolidation and use of surplus special nuclear materials and machines that would be used in support of the LACEF criticality experiments and training program at LANL. The anticipated operational life of the proposed action is approximately 30 years.

5. Decisions Regarding INEEL Programs

The Proposed Action was accepted. Based on the environmental assessment that analyzes the potential environmental effects that would be expected to occur if the DOE were to consolidate these surplus materials and machines at LACEF, the proposed action does not constitute a major federal action which would significantly affect the human environment within the meaning of NEPA. Therefore, no environmental impact statement is required for this proposal.

DOE/EA-1135 - Environmental Assessment for Offsite Thermal Treatment of Low-Level Mixed Waste, December 1996

1. General Scope/Purpose and Need of EA/EIS

The United States (US) Department of Energy (DOE) needs to treat contact-handled low-level mixed waste (MLLW) containing polychlorinated biphenyls (PCBs) and other organics, to meet existing regulatory standards for eventual disposal. Radioactive and hazardous waste is stored at DOE's Hanford Site located near Richland, Washington. The waste inventory includes contact-handled MLLW, which is made up of both low-level radioactive and hazardous constituents. Some of the Hanford Site MLLW contains organic constituents such as solvents and PCB's that require thermal treatment to meet regulatory standards for disposal. Thermal treatment by gasification and vitrification would also result in waste volume reduction and a highly stable form for disposal (Place 1993). Thermal treatment before disposal is required for some constituents of this Hanford Site MLLW under RCRA, and State of Washington regulations. Under RCRA, some MLLW is suitable for land disposal only after thermal treatment and/or stabilization.

2. Alternatives Analyzed

The proposed action is to transport up to 5,120 cubic meters of contact-handled low-level mixed waste from Hanford Site to the Allied Technology Group (ATG) gasification and vitrification building in Richland, Washington, for treatment, and to return the treated waste to Hanford for disposal. The waste would be staged to the ATG gasification and vitrification building over a ten-year period. The ATG gasification and vitrification building is located adjacent to the Hanford Site boundary in an industrial area in the city of Richland. After the Hanford Site MLLW is treated, the residue from the treatment, a leach-resistant glass material, would be returned to Hanford Site and disposed of in a disposal facility.

No Action Alternative. Under the no action alternative, MLLW would continue to accumulate at Hanford Site, pending future decisions. Also, life-cycle costs for the long-term storage of the untreated waste are greater than life-cycle costs for near-term waste treatment and disposal. This alternative would not support the purpose and need for the proposed action.

The following alternatives were considered in the process of identifying the proposed action, but were not feasible and not analyzed in detail in this document.

Treatment at the Waste Experimental Reduction Facility, Idaho - Under this alternative DOE would send the waste for treatment to the existing WERF facility at INEEL, approximately 500 miles from 200 West Area. The treated waste would be returned to the Hanford for eventual disposal. Risk of a transportation accident would be greater than for the proposed alternative. The higher risk would derive both from an increased accident probability due to a lack of access controls over much of the route and due to an increased accident frequency probability due to longer travel times. It is assumed that WERF would operate with efficiency equal to the ATG facility of the proposed action, and that the waste handling procedures would be similar to the ATG facility.

Approximately 82% of the Hanford Site MLLW generated between 1993 and 1995 from on-site and off-site generators would not be treatable at the INEEL's WERF facility. This is because the facility's waste acceptance criteria preclude numerous items from being incinerated, such TSCA

waste and waste with more than 0.1 nCi/g of alpha emitting radionuclides. This alternative would only partially fulfill the purpose and need of the proposed action.

Build a Thermal Treatment Facility at the Hanford Site 200 West Area - Based on a study completed in 1993, a rotary kiln incinerator was proposed to be built on Hanford site for the purpose of treating Hanford Site MLLW (Place 1993). Construction costs—including direct, escalation, and contingency—were estimated to be $620 million for a stand-alone facility and $20 million in annual operating costs. The proposed incinerator would have treated contact-handled transuranic mixed waste, remote-handled MLLW, remote-handled transuranic mixed waste, as well as contact-handled MLLW, in a process employing a plasma arc furnace.

The facility would have been built and operated a 200 West Area, adjacent to the present temporary MLLW storage site. As with the preferred alternative, the treated and stabilized waste would have been disposed of at 200 West Area. This alternative would have fulfilled the purpose and need of the proposed action. The cost was considered to be too high; however, and construction was not projected for completion until 2005 (Place 1993).

Lockheed Environmental Systems and Technology Company Proposal - This alternative would use a plasma arc melter, housed in Lockheed's existing Waste Treatment Facility near the center of the INEEL, to process MLLW from the Hanford Site. The facility is presently being built but would have to be modified and permitted (RCRA/TSCA) to accept Hanford Site MLLW. Similar to the proposed action, the final waste form to be produced would be glass/slag.

This facility is approximately 500 miles from 200 West Area. The operational impact of this treatment is assumed to be similar to that of ATG's. Risk of a transportation accident would be greater than for the proposed action. The higher risk would derive both from an increased accident probability due to a lack of access controls over much of the route and to an increased accident frequency probability due to longer travel times.

Scientific Ecology Group Proposal - This proposed alternative was to treat the Hanford Site MLLW at a steam detoxification unit being built for other treatment purposes in an existing scientific Ecology group incineration building in Oak Ridge, Tennessee. The building is near the Clinch River and Grassy Creek approximately 11 miles southwest of the center of Oak Ridge. Final waste form would be microencapsulated ash and solid residual. This facility is approximately 2300 miles from 200 West Area. The operational impact of this treatment is assumed to be similar to that of ATG's. Risks of a transportation accident would be greater than for the proposed action, as would the cost of transporting the waste.

3. Decisions to be Made

The DOE needs to treat contact-handled MLLW, containing polychlorinated biphenyls (PCB's) and other organics, to meet existing regulatory standards for eventual disposal. Treatment followed by land disposal would reduce long-term surveillance and maintenance burdens at Hanford Site and would be in compliance with interagency agreements. This EA looked at six alternatives before choosing the preferred alternative. Basically the decision to be made was "where" the MLLW would be treated.

4. INEEL Programs Analyzed

Treatment of Hanford mixed waste at the Waste Experimental Reduction Facility (WERF) was one option but was dismissed because of the greater risk of a transportation accident and the shipping costs. Therefore the actual treatment itself was not analyzed.

5. Decisions Regarding INEEL Programs

No decisions were made that would affect INEEL programs.

DOE/EA-1148 - Electrometallurgical Treatment Research And Demonstration Project Environmental Assessment, May 1996

1. General Scope/Purpose and Need of the EA

The EA analyzed the potential environmental consequences of demonstrating the use of electrometallurgical technology to treat sodium-bonded spent nuclear fuel from the Experimental Breeder Reactor – II (EBR-II) Reactor. The technology was demonstrated on 1.6 metric tons of sodium-bonded uranium spent nuclear fuel from July of 1996 to August of 1999. The demonstration project treated 100 EBR-II Driver assemblies and 13 blanket assemblies in the Fuel Conditioning facility at Argonne National Laboratory-West. Treatment of the EBR-II fuel included chemically removing and reacting metallic sodium that was bonded to the fuel, and producing low-enriched uranium and two durable high level waste forms. One waste form is ceramic and the other is metallic. The demonstration was successful in that it met all success criteria put forth by the National Research Council, who monitored the progress of the demonstration.

2. Alternatives Analyzed

No Action- This alternative was to place all EBR-II spent nuclear fuel into interim retrievable storage without demonstrating the electrometallurgical technology.

Conducting the research and demonstration project in an alternative location. – This alternative was to demonstrate the electrometallurgical technology in another shielded hot-cell facility not located at Argonne National Laboratory-West. The alternative facility analyzed was the Test Area North Hot Shop.

Conducting a smaller scope equipment performance verification project. This alternative was to limit the demonstration to less than half of the spent fuel in the proposed action. This alternative would demonstrate the operability of the electrorefining equipment, but would not extract enough transuranic elements and fission products from the spent fuel to demonstrate the immobilization of these elements in the ceramic high-level waste form.

3. Decisions to be Made

The decision was whether or not to demonstrate the feasibility of electrometallurgical technology to treat sodium-bonded spent fuel from the EBR-II reactor. The treatment results in low-enrichment uranium and two waste forms (metallic and ceramic) that perform as well as the DOE standard borosilicate glass high-level waste form.

4. INEEL Programs Analyzed

The EA and FONSI affected the DOE-NE sponsored EBR-II Spent Fuel Treatment Project at Argonne National Laboratory-West, which is administered by the DOE Chicago Operations Office. The demonstration had positive results that led to the identification of electrometallurgical treatment as an alternative for making the EM sodium-bonded Fermi-1 blanket fuel ready for shipment to the national spent fuel repository. The Fermi-1 blanket fuel is stored at the INTEC facility.

5. Decisions Regarding INEEL Programs

The decision to demonstrate the feasibility of electrometallurgical treatment led to the identification of this technology as a possible method to make all INEEL sodium-bonded spent nuclear fuel ready for shipment to the national spent fuel repository.

DOE/EA-1149 - Closure of the Waste Calcining Facility (CPP-633), Idaho National Engineering and Environmental Laboratory, June 1996

1. General Scope/Purpose and Need of EA/EIS

The U. S. Department of Energy (DOE) prepared this Environmental Assessment (EA) to analyze the environmental impacts of closing the Waste Calcining Facility (WCF) at the Idaho National Engineering and Environmental Laboratory (INEEL). DOE proposes reduce the risk of radioactive exposure and release of radioactive and hazardous constituents and eliminate the need for extensive long-term surveillance and maintenance. DOE determined that they should close the facility to reduce the risks to human health and the environment and to comply with Resource Conservation and Recovery Act requirements.

DOE identified six facility components in the WCF as Resource Conservation and Recovery Act (RCRA)-units in the INEEL RCRA Part A application. The WCF closure must comply with Idaho Rules and Standards for Hazardous Waste contained in the Idaho Administrative Procedures Act (IDAPA). These state regulations, in addition to prescribing other requirements, incorporate by reference the federal regulations that prescribe the requirements for facilities granted interim status pursuant to the RCRA.

The 1995 EIS describes the WCF closure project. DOE determined in the Record of Decision (ROD) that they would implement certain actions and other actions deferred. The ROD states, for the WCF that "Implementation decisions will be made in the future pending further project definition, funding priorities and any further review under the Comprehensive Environmental Response Compensation and Liability Act, or the National Environmental Policy Act." In accordance with 40 CFR Part 1502.2, the WCF EA tiered from the 1995 EIS.

2. Alternatives Analyzed

This EA analyzes the following alternatives: (a) Closure-in-Place or the proposed action and (b) Closure-by-Removal. DOE believes that the two primary alternatives give an adequate range to describe potential impacts, and result in the intended purpose of the action, that is to bring the WCF to closure.

Other alternatives DOE considered for WCF closure included: phased removal of process equipment beginning with the silica gel adsorbers and ending with clean closure by removal; and various combinations of removal and grouting (e.g., remove RCRA-units and grout the remaining process equipment and cells). These alternatives offered no apparent advantages and were eliminated from detailed consideration due to estimated higher cost and occupational radiation doses.

3. Decisions to be Made

The decision to be made was how to close the Waste Calcining Facility.

4. INEEL Programs Analyzed

The project analyzed was closure of the Waste Calcining Facility.

5. Decisions Regarding INEEL Programs

The decision was made to close the WCF in place.

DOE/EA-1189 - Non-Thermal Treatment of Hanford Site Low-Level Mixed Waste, September 1998

1. General Scope/Purpose and Need of EA/EIS

The U.S. Department of Energy (DOE), Richland Operations Office (RL) needs to demonstrate the feasibility of commercial treatment of contact-handled low-level mixed waste (MLLW) to meet existing Federal and State regulatory standards for eventual land disposal. Treatment before disposal is required for some constituents of this Hanford Site MLLW under the Resource Conservation and Recovery Act. Under RCRA land disposal restrictions, some MLLW is suitable for land disposal only after stabilization.

The Hanford Site waste stream evaluated in this Environmental Assessment is existing waste that is currently stored at the Central Waste Complex located in the 200 West Area of the Hanford Site. Most of the waste packages that would be treated under the proposed action have surface radiation dose rates below 1 mrem/hr, and the highest package dose rate is approximately 100 mrem/hr. A total waste volume of 2,600 cubic meters was evaluated in this EA. This represents the maximum waste volume that would be treated for demonstration purposes. The waste stream evaluated in this EA represents a small fraction of the projected Hanford Site MLLW volume. This is an interim action under the Hanford Solid Waste Program Environmental Impact Statement.

2. Alternatives Analyzed

No Action Alternative - Under the No Action alternative MLLW would continue to be stored at the Hanford Site, pending future decisions. Life-cycle costs for the long-term storage of the untreated mixed waste are greater than the life-cycle costs for near-term waste treatment and disposal.

Preferred Alternative - DOE proposes to transport contact-handled MLLW from the Hanford Site to the ATG Mixed Waste Facility (MWF) in Richland, Washington, for non-thermal treatment and to return the treated waste to the Hanford Site for eventual land disposal. Over a 3-year period the waste would be staged to the ATG MWF, and treated waste would be returned to the Hanford Site. The ATG MWF would be located on an 18 hectare ATG Site adjacent to ATG's licensed low-level waste processing facility at 2025 Battelle Boulevard. The ATG MWF is to be located on the existing ATG Site, near the DOE Hanford Site, in an industrial area in the City of Richland.

The effects of siting, construction, and overall operation of the MWF have been evaluated in a separate State Environmental Policy Act EIS. The proposed action includes transporting the MLLW from the Hanford Site to the ATG Facility, non-thermal treatment of the MLLW at the ATG MWF, and transporting the waste from ATG back to the Hanford Site. Impacts from waste treatment operations would be bounded by the ATG State Environmental Policy Act EIS, which included an evaluation of the impacts associated with operating the non-thermal portion of the MWF at maximum design capacity (8,500 metric tons per year).

Treatment at the Advanced Mixed Waste Treatment Project, Idaho - Under this alternative DOE would send the waste for treatment at the proposed Advanced Mixed Waste Treatment Project Facility at the Idaho National Engineering and Environmental Laboratory, in Idaho Falls, Idaho, approximately 800 km (500 mi) from the 200 West Area. The proposed treatment facility

includes compaction and non-thermal stabilization processes for contact-handled MLLW. The treated waste would be returned to the Hanford Site for eventual disposal. It is assumed that the Advanced Mixed Waste Treatment Project Facility would operate with an efficiency equal to the ATG MWF, and that waste-handling procedures would be similar to the ATG Facility.

Treatment at EnviroCare, Utah - Under this alternative DOE would send the waste for treatment at EnviroCare's mixed waste treatment facility in Clive, Utah, approximately 1,040 km (650 mi) from the 200 West Area. The treated waste would be returned to the Hanford Site for eventual disposal. It is assumed that Envirocare's waste treatment facility would operate with an efficiency equal to the ATG MWF, and waste-handling procedures would be similar to the ATG Facility.

Treatment at Nuclear Sources and Services Incorporated (NSSI), Texas - Under this alternative DOE would send the waste for treatment at NSSI's facility in Houston, Texas, approximately 3,700 km (2,300 mi) from the 200 West Area. The treated waste would be returned to the Hanford Site for eventual disposal. It is assumed that the NSSI waste treatment facility would operate with an efficiency equal to the ATG MWF, and that waste-handling procedures would be similar to the ATG Facility.

3. Decisions to be Made

The DOE needs to demonstrate the feasibility of commercial treatment of contact-handled low-level mixed waste (MLLW) to meet existing Federal and State regulatory standards for eventual land disposal. The decision to be made is where to conduct the feasibility testing.

4. INEEL Programs Analyzed

Hanford mixed waste was analyzed for treatment at the Advanced Mixed Waste Processing Facility including transportation of the waste from Hanford to the INEEL and shipment of the treated material back to Hanford for disposal.

5. Decisions Regarding INEEL Programs

No decisions were made that would affect INEEL programs.

DOE/EA-1207 - Pit Disassembly and Conversion Demonstration Environmental Assessment and Research and Development Activities, August 1998

1. General Scope/Purpose and Need of EIS/EA

This EA provides an assessment of the potential environmental impacts of various ways to disposition U.S. surplus weapons-usable fissile materials. Specifically, it evaluates the LANL Plutonium Facility-4's capability to disassemble and convert approximately 250 pits that are widely diverse in their characteristics.

The purpose of this action is to safely and efficiently disassemble surplus plutonium pits and convert the surplus plutonium metal into a suitable and unclassified oxide form.

The U. S. has declared 38.2 metric tons of weapons-usable plutonium to be surplus to national security needs. Disposition of surplus plutonium is needed to reduce reliance on institutional controls and to provide visible evidence of irreversible disarmament.

2. Alternatives Analyzed

A total of four alternatives were analyzed for two candidate DOE sites (i.e., LANL and LLNL). However, LLNL was quickly eliminated from consideration due to administrative limits on handling plutonium and transportation concerns.

No Action Alternative - An integrated pit disassembly and conversion line would not be demonstrated at LANL.

Disassembling and Converting Fewer Than 250 Pits - This alternative would not provide an adequately comprehensive experience base upon which to base a decision.

Disassembling and Converting Only Plutonium from Pits - This alternative would exclude disassembling and converting non-pit plutonium metal. And, therefore, would not generate the complete information needed for the proposed demonstration.

Disassembling and Converting Plutonium to a Metal Form Only - This alternative would not test and demonstrate conversion of pit plutonium to the oxide form most suitable for either immobilization of MOX fuel.

3. Decisions to be Made

The decision to be made by the DOE in this EA was whether the potential environmental impacts were acceptable if the LANL Plutonium Facility-4 was used to disassemble and convert approximately 250 pits.

4. INEEL Programs Analyzed

The EA briefly discussed the shipment of plutonium metal from the INEEL to LANL.

5. Decisions Regarding INEEL Programs

No decisions were made concerning INEEL programs.

DOE/EA-1210 - Lead Test Assembly Irradiation and Analysis Watts Bar Nuclear Plant, Tennessee and Hanford Site Richland, Washington, July 1997

1. General Scope/Purpose and Need of EIS/EA

The U.S. Department of Energy (DOE) needed to confirm the viability of using a commercial light water reactor (CLWR) as a potential source for maintaining the nations supply of tritium. The Proposed Action discussed in this environmental assessment is a limited scale confirmatory test that would provide DOE with information needed to assess that option.

The Proposed Action was to confirm the results of developmental testing conducted previously at DOE facilities and provide DOE with information regarding the actual performance of the Tritium Producing Burnable Absorber Rods (TPBARs) in a CLWR. It was also to demonstrate that tritium production could be carried out within the normal operating and regulatory constraints associated with a commercial nuclear power facility, without affecting the plants safety systems, production capacity, or normal operations. These activities would provide added confidence to the utilities and the NRC, which regulates commercial power reactors, that tritium production in a CLWR could meet national security needs in a technically straightforward, safe and cost effective manner.

Activities associated with the Proposed Action include replacing four conventional pressurized water reactor (PWR) burnable absorber assemblies with assemblies containing the TPBARs – Lead Test Assembly (referred to as TPBAR-LTAs) during the next refueling outage at the Watts Bar Nuclear plant (WBN), Unit 1 in southeastern Tennessee. The TPBARs were shipped from the Hanford Site near Richland, Washington to the Westinghouse fuel fabrication facility in Columbia, South Carolina, for assembly into TPBAR-LTAs. The TPBAR-LTAs were inserted into four new fuel assemblies at Westinghouse. The fuel assemblies with the TPBAR-LTAs (hereafter referred to as integrated assemblies) were then be shipped to WBN with the rest of the new fuel and stored until the next refueling outage, when they were inserted into the reactor. A typical fuel reload would contain more than 1000 burnable absorber rods, of which 32 were replaced by the TPBARs in the proposed test.

The TPBAR-LTAs were irradiated for one complete operating cycle (approximately 18 months), following which they were removed from the integrated assemblies and stored in the spent fuel pool. The fuel assemblies were placed back in the reactor as part of the refueling process. The TPBAR-LTAs were shipped to the Pacific Northwest National Laboratory (PNNL) at Hanford for post-irradiation examination (PIE). Because the fuel assemblies from the integrated assemblies could be returned to the reactor core during refueling, no shipment or disposal of spent nuclear fuel was required as part of the Proposed Action.

As part of the PIE activities at Hanford, the TPBARs were removed from the remaining hardware. The TPBARs were then be subjected to non-destructive evaluation (NDE), including a visual inspection and gamma radiography. The TPBARs were punctured to collect and analyze any gases that accumulate during irradiation, and the penetrations would be sealed before the TPBARs are stored or processed further.

The TPBARs have been examined by neutron radiography at the Argonne National Laboratory-West (ANL-W) near Idaho Falls, Idaho. Upon completion of the neutron radiography, the TPBARs will be returned to PNNL for destructive examination.

2. Alternatives Analyzed

No Action: Under a no-action alternative, DOE would not conduct the LTA program or post-irradiation examinations. The final selection of either a CLWR or an accelerator as the nations primary tritium source would be made without the benefit of the results of this proposed project. The no-action alternative is not consistent with the Departments purpose and need and therefore was not considered reasonable. However, evaluation of the No Action alternative is required by NEPA as a baseline against which to assess the impacts of the Proposed Action and alternatives.

Irradiation at Other Reactor/Analysis at Other DOE Laboratory: DOE considered the use of another commercial reactor to conduct the LTA program, as well as the use of other DOE laboratory facilities for examining the TPBARs. WBN was proposed for these tests because its refueling schedule provided optimum timing for obtaining the performance data needed by DOE, and because it was the only reactor of compatible design that was not encumbered by vendor restrictions on use of its fuel or other components for defense-related research. All other U.S. PWRs of this design obtain their fuel from foreign vendors that impose contractual restrictions on use of their products for defense-related purposes. Use of any facility other than WBN would have required DOE to replace all of the reactors fuel, resulting in possible delay of the tests as well as substantially increased cost. Therefore, DOE considered options other than use of WBN to be unreasonable for the proposed tests. A future, separate evaluation process would identify one or more facilities for the actual tritium production mission. Reactors owned by DOE (such as the FFTF at Hanford or the Advanced Test Reactor at the INEEL) or reactors operated by universities were not considered reasonable alternatives because they do not meet the purpose of, and need for, the Proposed Action, which is to demonstrate the viability of producing tritium in a CLWR.

Other DOE laboratories could perform the post-irradiation activities if the technology were transferred to those laboratories, and if the laboratories possessed hot cells large enough to contain the full length of the TPBAR-LTAs. This alternative was not considered reasonable because Hanford has the technology for post-irradiation examination of the TPBARs. Further, Hanford has hot cells suited for this purpose and has conducted similar types of examinations in the past. Use of alternate facilities would introduce technical uncertainties and impact both the schedule and cost for the proposed tests; therefore, this alternative was not evaluated in detail.

Analysis at Private Facility: DOE also considered the use of a private hot cell facility to conduct the analysis on the irradiated TPBARs. However, hot cells with the ability to handle the quantities of radioactive materials involved and to accommodate the full-length assemblies are generally not available outside the DOE complex. The exception would be a commercial nuclear fuel fabrication facility which is owned by a foreign corporation. However, the security measures required to perform the work in a foreign-owned facility would be difficult to implement. For these reasons, use of non-DOE facilities was not considered reasonable and is not evaluated further.

3. Decisions to be Made

The decision to be made was whether or not to conduct an LTA program to confirm the viability of using a commercial light water reactor (CLWR) to produce Tritium.

4. INEEL Programs Analyzed

The EA and FONSI affected the Hot Fuel Examination Facility (HFEF) at Argonne National Laboratory-West, which is administered by the DOE Chicago Operations Office. DOE Defense Programs (DP) funded modifications to the HFEF cask transfer tunnel to accommodate CLWR-sized fuel assemblies. DP also funded neutron radiography of the TPBARS in HFEF following their irradiation in the Watts Bar Nuclear Power Plant. The examination of the TPBARS in HFEF is scheduled to conclude by the end of FY 2000.

5. Decisions Regarding INEEL Programs

The decision to conduct the LTA program to include radiography of the post irradiation TPBARs at the HFEF involved the Argonne National Laboratory-West facility. The LTA examination was conducted without interfering with the ongoing Spent Fuel Treatment research funded by DOE-NE.

DOE/EA-1217 - Test Area North Pool Stabilization Project Update, August 1997

1. General Scope/Purpose and Need of EA/EIS

The U. S. Department of Energy (DOE) prepared an Environmental Assessment (EA) to update the "Test Area North Pool Stabilization Project" EA (DOE/EA-1050) and finding of no significant impact (FONSI) issued May 6, 1996. This update analyzes the environmental and health impacts of a "drying" process for the Three Mile Island (TMI) nuclear reactor core debris canisters now stored underwater in a facility on the Idaho National Engineering and Environmental Laboratory (INEEL). The pre-decision EA analyzed the drying process, but that particular process was determined to be ineffective and dropped from the EA and FONSI issued May 6, 1996. A new drying process was subsequently developed.

This environmental assessment (EA) identified and evaluated environmental impacts associated with (a) constructing an Interim Storage System (ISS) at INTEC; (b) removing the TMI and commercial fuels from the pool and transporting them to INTEC for placement in an ISS, and (c) draining and stabilizing the TAN Pool. DOE also proposed to remove and decontaminate or dispose of miscellaneous hardware in the INEEL Radioactive Waste Management Complex (RWMC).

DOE identified and proposed to eliminate vulnerabilities associated with SNF storage facilities. Vulnerabilities identified for TAN are storage of SNF in an unlined pool, wet storage of commercial SNF in aluminum coffins, and seismic inadequacy of the pool. In May of 1995, the State of Idaho asked the District Court to continue the prior injunction against SNF transportation by the Department of Energy, claiming that the 1995 EIS was defective. DOE, the Department of the Navy and the State of Idaho settled the litigation through a Settlement Agreement. The Settlement Agreement states: "DOE shall complete construction of the Three Mile Island dry storage facility by December 31, 1998. DOE shall commence moving fuel into the facility by March 31, 1999, and shall complete moving fuel into the facility by June 1, 2001."

The TAN Pool does not meet SNF storage requirements delineated in DOE Order 420.1. Principal deficiencies of the TAN Pool include lack of redundant containment of pool water (i.e., stainless steel pool liner), no provisions for detecting subsurface leaks from the pool, and inadequate control of the air space over the pool.

2. Alternatives Analyzed

This EA analyzed the following alternatives: (a) Refurbish the Test Area North (TAN) Pool, (b) Construct a new wet (underwater) storage facility, (c) Store the TMI core debris canisters and commercial fuels in existing Idaho Nuclear Technology Engineering Center (INTEC) storage systems (d) Construct an Independent Spent Fuel Storage Facility at a point removed from above the Snake River Plain Aquifer, and (e) Construct an Independent Spent Fuel Storage Facility at TAN. In addition, the DOE evaluated the consequences of no action.

3. Decisions to be Made

The decision to be made was how to address the SNF vulnerabilities that were identified and how to meet the commitments made by DOE to the State of Idaho regarding removing SNF from the TAN pool. This update specifically called for a different drying process.

4. INEEL Programs Analyzed

For Spent Nuclear Fuel Management, the DOE prepared this EA to update the "Test Area North Pool Stabilization Project" EA (DOE/EA-1050) and FONSI issued May 6, 1996. This update analyzes the environmental and health impacts of a "drying" process for the Three Mile Island (TMI) nuclear reactor core debris canisters now stored underwater in a facility on the INEEL. The pre-decision EA analyzed the drying process, but that particular process was determined to be ineffective and dropped from the EA and FONSI issued May 6, 1996. A new drying process was subsequently developed.

5. Decisions Regarding INEEL Programs

DOE prepared a pre-decision version of this updated EA and FONSI, dated June 1997, and made it available for a 30-day comment period on June 25, 1997. DOE did not receive comments on the pre-decision EA and FONSI.

DOE determined that the proposed action did not constituted a major Federal action significantly affecting the quality of the human environment and issued a Finding of No Significant Impact (FONSI). While the EA evaluated the impacts associated with the overall scope of the TAN Pool Stabilization Project, this FONSI was limited to actions that within the scope of DOE's decision-making authority. The DOE applied to the NRC for licensing of: a) the transportation of the spent nuclear fuel and debris to INTEC and b) the construction and operation of the ISS. These actions are outside of the scope of DOE's decision-making authority, therefore the NRC evaluated them as part of their independent NEPA evaluation and decision-making process.

DOE/EA-1310 - Decontamination and Dismantlement of the Advanced Reactivity Measurements Facility and Coupled Fast Reactivity Measurements Facility at the Idaho National Engineering and Environmental Laboratory, March 2000

1. General Scope/Purpose and Need of EIS/EA

The U. S. Department of Energy (DOE) prepared this Environmental Assessment (EA) to decontaminate and dismantle radiological contaminated and hazardous components and equipment in TRA-660, to allow future use by other programs. Additionally, the need for the proposed action is to reduce the potential risk of radioactive exposure and release of hazardous constituents from the facility.

2. Alternatives Analyzed

DOE analyzed the following alternatives: (a) removing all contaminated equipment and materials, disposing canal water, and backfilling the canal with fill material for future use of the facility and (b) decontamination and total dismantlement of TRA-660 and backfilling the area to grade with soil fill material. In addition, the DOE evaluated the consequences of no action.

3. Decisions to be Made

The DOE decided to prepare an EA to determine whether there would be any significant environmental impacts associated with the proposed action and reasonable alternatives, including the no action alternative. Based on the analysis in the EA that indicated there would be no significant impact, DOE has decided to proceed with the action as proposed.

The Advanced Reactivity Measurement Facility (ARMF) and the Coupled Fast Reactivity Measurement Facility (CFRMF) are research reactors located at the Test Reactor Area (TRA) on the Idaho National Engineering Laboratory (INEEL). The proposed action involves their removal and disposal. In general, the preparation of an EIS for the D&D of large reactors is appropriate because of factors such as residual contamination, residual environmental risk, and risk to workers. ARMF and CFRMF are small, about the size of a typical washing machine, suspended in the water-filled canal in TRA-660. The level of residual contamination, risk to the environment, or worker hazard associated with the removal and disposal of those reactors would be very small.

4. INEEL Programs Analyzed

The project analyzed was the D&D of the ARMF/CFRMF reactors at the Test Reactor Area.

5. Decisions Regarding INEEL Programs

Proceed with the D&D of the ARMF/CFRMF.

DOE/EIS-0026-S-2 - Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement (SEIS), September 1997

1. General Scope/Purpose and Need of the EA/EIS

The U.S. Department of Energy needs to dispose of transuranic (TRU) waste generated by past, present, and future activities in a manner that protects public health and the environment. In previous NEPA documents, the Department examined alternatives to repository disposal at WIPP. In this document, the Department assesses whether and, if so how to dispose of TRU waste at WIPP.

Need for WIPP Disposal Phase final Supplemental EIS-II

* Identification of Additional TRU Waste Generator Sites.
* Changes in TRU Waste Volumes and Waste Forms.
* Changes in Compliance Status of Previously Disposed of TRU Waste.
* Passage of the Limited Work Authorization (LWA).
* Acquisition of New Data from the Experimental Program.
* Carlsbad Area Office/Waste Isolation Pilot Plant Waste Minimization and Pollution Prevention Awareness Program Plan (DOE 1995b).
* Publication of the WM PEIS (May 1997).
* Changes to the Planning-Basis Waste Acceptance Criteria (WAC).
* Changes to the Transportation Routes.
* Changes to the transuranic package transporter (TRUPACT-II) Certificate of Compliance (NRC 1989).
* Changes in the Status of Relevant Regulations.

2. Alternatives Analyzed

The DOE's proposed action is to continue with the phased development of WIPP by disposing of TRU waste at the facility, as authorized by Public Laws 96-164, 102-579, and 104-201. Under the Proposed Action, DOE would take the basic inventory, treat it to the Waste Acceptance Criteria, and dispose of it at WIPP.

No Action Alternative 1: Total Inventory (Including PCB-Commingled TRU Waste), Treat Thermally to Meet land disposal restrictions, Store Indefinitely, Dismantle WIPP.

No Action Alternative 2: Basic Inventory, Treat Newly Generated TRU Waste to WAC, Store at Generator Sites, Dismantle WIPP.

Action Alternative 1: Accept all TRU Waste (Except PCB-Commingled TRU Waste) at WIPP.

Action Alternative 2: Total Inventory (Including PCB-Commingled TRU Waste), Treat it Thermally to Meet Land Disposal Restriction, and Dispose of it at WIPP.

Action Alternative 3: Total Inventory (Except PCB-Commingled Waste), Treat by Shred and Grout, Dispose of at WIPP.

3. Decisions to be Made

Whether to open the Waste Isolation Pilot Plant (WIPP) for disposal of transuranic (TRU) waste or continue to maintain the waste in storage. The two no action alternatives examine the impacts of not opening WIPP.

Which portions of contact-handled (CH) TRU and remote-handled (RH) TRU waste inventory (identified in Chapter 2 as the Total Inventory consisting of the Basic Inventory and Additional Inventory) should be disposed of at WIPP or continued in storage. Analyses of the alternatives include impacts of both inventories.

Which minimal level of waste treatment should be required in the Waste Acceptance Criteria (WAC) to meet disposal performance standards or storage requirements prior to the disposal of or storage of waste. The three action alternatives differ in the treatment proposed, as do the two no action alternatives.

Whether to transport TRU waste primarily by truck or by rail. Three transportation options (truck, commercial rail, and dedicated rail) are assessed for all alternatives except the Proposed Action, where transportation by truck is the only option considered, and No Action Alternative 2, where there is no transportation.

Decisions based on SEIS-II may be a combination of the options presented within the alternatives analyzed. This means that portions of two or more of the alternatives analyzed in SEIS-II may be combined and used by the Department for the management or disposal of TRU waste.

The Preferred Alternative is the Proposed Action, reserving the possibility of using rail transportation in the future following appropriate NEPA review.

4. INEEL Programs Analyzed

Long-term disposition of the INEEL TRU waste including characterization and transportation.

5. Decisions regarding INEEL Programs.

INEEL TRU waste in storage will be characterized to meet with WIPP WAC and shipped to WIPP.